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November 22, 1996

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: MM Docket No. 87-268

Dear Mr. Caton:

We are submitting herewith on behalf of Gateway Communications, Inc. as its Comments in the above-referenced proceeding the original and five (5) copies of an Engineering Statement prepared by Cohen, Dippell and Everist, P.C., consulting engineers.

Should there be any questions concerning the Comments, please communicate with the undersigned.

Very truly yours,



John R. Wilner

JRW/vih

Enclosures

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COHEN, DIPPELL AND EVERIST, P. C.

ENGINEERING STATEMENT
ON BEHALF OF
GATEWAY COMMUNICATIONS, INC.
RE: COMMENTS IN RESPONSE TO THE
SIXTH FURTHER NOTICE OF PROPOSED RULE MAKING
IN MM DOCKET NO. 87-268
NOVEMBER 1996

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

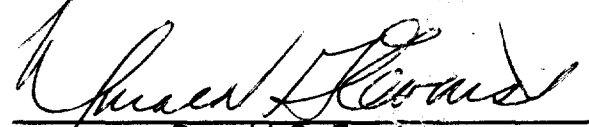
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

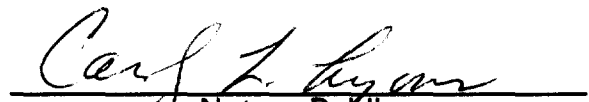
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 21st day of November, 1996.



Notary Public

My Commission Expires: 2/28/98

This engineering statement has been prepared on behalf of Gateway Communications, Inc. ("Gateway"), the licensee of Television Stations WBNG-TV, WOWK-TV and WTAJ-TV, and provides its comments in response to Commission's Sixth Further Notice of Proposed Rule Making in MM Docket 87-268¹ ("Sixth Further Notice"). Gateway appreciates the Commission's efforts in bringing Digital Television ("DTV") terrestrial service to the consumer as well as the efforts of the Advisory Committee in helping to establish a viable DTV system.

Gateway is committed to maintaining its NTSC service while it brings DTV service to its current coverage areas. It supports the adoption of uniform nationwide DTV standards, as it believes this is the only feasible way that technical transmission and corresponding receiver uniformity will occur. Gateway believes this is important to inaugurating and establishing the new DTV service in an abbreviated time frame, while maintaining its current service areas.

Gateway will continue its active participation in regional Broadcast Caucus Meetings where it has expressed its concerns and requested information relating to the future of its television stations. Since Gateway has yet to receive information from its inquiries to the Broadcast Caucus, it cannot comment on which allotment plan (the FCC core or the MST plan), is most appropriate. In fact, Gateway believes

¹In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Sixth Further Notice of Proposed Rule Making, MM Docket No. 87-268 (August 14, 1996).

as discussed below, sufficient technical information has not been developed in the public domain from which to make an informed judgement.

DTV Proceeding

Gateway understands the complications associated with making DTV assignments to individual stations while both maintaining the current NTSC service and achieving the maximum DTV facility. Gateway urges the FCC to proceed with these tasks in an effective and constructive time-frame by (1) adopting the Grand Alliance system, (2) adopting a table of DTV allotments in Section 73.606 of the FCC Rules which affixes the letter D next to each current allotment entitled to a DTV allotment; and (3) initiating a separate further rulemaking pertaining only to those technical issues such as planning factors, channel, and station parameters for each station. With these steps, the FCC and the broadcast industry would continue toward achieving an effective and technically viable DTV system while maintaining the current NTSC service.

The recommended procedures would permit the immediate adoption of a DTV system and would establish those existing allotments that qualify for a DTV channel. It would also provide the flexibility to establish the pertinent technical parameters to be used for determining each station's individual parameters at a later date, after answers to unresolved technical issues have been determined, and would afford the FCC the opportunity to coordinate assignments with the neighboring administrations

of Canada and Mexico². This separate rule making would allow the FCC to permanently assign DTV channels and technical operating parameters once they become known while allowing flexibility for later determinations in areas in which other technical details have not been fully established. Gateway recommends that time-tables and milestones be established so that the proposed rule making would be concluded in the shortest feasible time-frame.

Gateway believes this approach will permit the FCC to proceed with the immediate adoption of the DTV standard and the DTV table. The separate further notice can focus attention on the critical allocation and technical issues. In international forums³, a similar approach is commonly used in order to expedite final resolution of issues within a basic framework of the agreement to be adopted.

Gateway Stations

The following is specific information on the Gateway stations.

WBNG-TV, Binghamton, New York

WBNG-TV operates on Channel 12 with a non-directional power of 166 kW, 369 meters HAAT. WBNG-TV is a CBS affiliate and is in market number 151. WBNG-TV serves the 136 counties in the States of New York and Pennsylvania. It

²For example, DTV allotments near the Canadian border will have substantial impact domestic allocations in Detroit, Buffalo, Cleveland allotments and other adjoining areas. Similarly, Mexican allotments will affect DTV allotments in San Diego and other southern border areas. In the United States, the assignment of these channels along these border areas will impact other domestic DTV facilities.

³A good example is the Assignment Plan developed at the Second Session of the Region 2 Conference on AM broadcasting held in 1981.

is carried on 106 cable systems with over 260,000 homes. The terrain encompassed by WBNG-TV is predicted Grade B contour ranges from fairly uniform to rugged in the areas located in outer extremities of its service area.

WTAJ-TV, Altoona, Pennsylvania

WTAJ-TV operates on Channel 10 with a power of 224 kW and a HAAT of 338 meters. WTAJ-TV is also a CBS affiliate and is in market number 90. The terrain encompassed by WTAJ is extremely rugged. WTAJ-TV serves the 11 counties within its Designated Market area and 16 counties outside its Designated Market area with over 294,000 homes and 45 cable systems outside the Designated Market area with over 20,000 homes.

WOWK-TV, Huntington, West Virginia

WOWK-TV operates with maximum facilities on VHF Channel 13 at an effective radiated power of 141 kW and a HAAT of 387 meters and is in market number 57. The terrain encompassed by the predicted Grade B ranges from rugged to mountainous. WOWK-TV is affiliated with the CBS network. WOWK-TV serves the 35 counties inside the Designated Market area and 33 counties outside of its Designated Market area. WOWK-TV programming is carried by 203 cable systems with over 416,000 homes.

Out-of-Band Emissions

The FCC and MST allotment proposals are based upon an assumption that the proposed emission mask will be sufficient to permit adjacent channel NTSC/DTV N + 1

and N-1 configurations⁴. Since that has not been conclusively proven, Gateway has serious reservations that these proposed emission mask values will not be easily realized nor be easily maintained. This one planning factor will be critical to maintaining existing NTSC service while establishing a new DTV service.

Propagation

The FCC proposal in the Sixth Further Notice has provided valuable information regarding service area replication. However, service area maps were not provided. Gateway believes that it is essential that proposed DTV service areas as well as the existing NTSC be plotted on maps and studied by individual stations in order to ascertain whether the proposed and existing service areas determined by the model are realistic. This is especially important to Gateway as each of the stations now serve areas which are located in rugged terrain.

Gateway's three television stations that are the subject of these comments are WBNG-TV, Binghamton, NY; WTAJ-TV, Altoona, PA; and WOWK-TV, Huntington, West Virginia. All are located in smaller markets and serve areas where there are few other TV stations. Gateway believes that these three stations maintain significant viewers at or near their predicted Grade B contours, either by off-the-air reception or by cable. Therefore, Gateway believes that any DTV plan must provide comparative coverage to the present NTSC coverage. Accordingly, existing NTSC service areas

⁴Where N is the NTSC channel

of individual stations need to be confirmed so that the model is providing an accurate service area portrayal and that comparative DTV replication is actually achieved. Gateway believes that interference-free service to the public is vital to terrestrial broadcasting and it will continue to focus on these critical technical issues.

Creating Underserved Areas

In addition to the absence of service maps, adequate technical information is not available so that a realistic determination of the DTV assignments proposed by the FCC or by MST allotment plan can be made. For example, Channel 13 is assigned as a DTV channel for Columbus, Ohio. The Channel 13 DTV operation would be located 173.6 km from the existing WOWK-TV transmitting site. The initial conclusions show that the proposed Columbus, Ohio Channel 13 DTV operation will extend its interfering contour in the direction of WOWK-TV and would overlap the WOWK-TV predicted Grade B service area. Based on this example, Gateway believes that the Commission needs to provide stations additional time to assess these service area issues to off-the-air reception and to cable headends. It is Gateway's opinion that the Commission cannot automatically assume that cable headends located in areas of predicted DTV interference will continue to be able to receive its signal unimpaired. Otherwise, the service area or cable home loss could result, conditions that Gateway finds unacceptable.

Other Technical Concerns

In Gateway's view, there are additional important technical issues that these factors must be clarified before another DTV allotment table is generated and decisions are reached on the issue of spectrum and the wisdom of releasing of any television spectrum for non-broadcast use.

These issues include Hawaii, landmobile, governmental use, ORTS, NTSC/DTV taboos and propagation anomalies.

Hawaii Landmobile

The Sixth Further Notice contains the following five DTV allotments which will be incompatible with the Channel 17 land-mobile allotment for Hawaii [FCC Rule 73.603(d)].

<u>City</u>	<u>NTSC Channel</u>	<u>DTV Channel</u>
Hilo	13	16
Hilo	14	18
Honolulu	11	18
Honolulu	13	16
Wailuku	15	17

Other allocation oversights may also be contained in the model which would make inappropriate assignments in the continental United States.

Governmental

Further, Gateway notes that governmental use of certain TV channels in the Key West area of southern Florida has historically resulted in alternate channels being assigned by the FCC in response to requests amend the Section 73.606(b) Table of

Television Allotments. Use of these channels for DTV will require similar consideration by the FCC in its model and it is uncertain whether this task has been performed.

ORTS

It is further noted that Offshore Radio Telecommunications Service (ORTS) is permitted within specified areas within the Gulf of Mexico and adjoining U.S. land areas on TV channels 15, 16, and 17. The Sixth Further Notice appears to contain DTV allotments which conflict with the ORTS service. Potential conflicts include the following.

<u>City/State</u>	<u>NTSC Channel</u>	<u>DTV Channel</u>
Mobile, AL	21	17
Lafayette, LA	15	16
Biloxi, MS	19	18
Gulfport, MS	25	16
Victoria, TX	25	15

This item needs to be clarified and resolved if necessary.

NTSC/DTV Taboos

Gateway believes that there is no interference mechanism from an NTSC station located 14 or 15 channels above a DTV station. The +/- 14 channel proposal in Paragraph 98 of the Sixth Further Notice, therefore, appears ambiguous.

Propagation Anomalies

Gateway is concerned about disruptions of DTV reception during the passage of weather fronts and storm systems which can change desired and/or undesired interfering signal levels by 20 to 30 dB. At a November 20, 1996 AFCCE meeting, the FCC speaker presented a graph which depicted rapid changes in received UHF signal with the passage of a weather front on this order of magnitude.

Associated critical EAS alerts for adverse weather warnings such as snow, tornados, etc. may be lost to affected viewers. Clarification is sought on how these potential service losses can be overcome.

Until comprehensive understanding of the constraints that have been utilized in the DTV model, there is concern that inappropriate domestic allocations could result thereby impacting individual stations and may delay implementation of DTV.

Summary

Gateway has and will continue to participate in the DTV proceeding. It appreciates the guidance that the Commission has provided since the inception of this rule making in 1987. Gateway encourages the adoption of a uniform standard; and the adoption of a Table of Allotments with a letter "D" affixed to each NTSC allotment that qualifies under MM Docket No. 87-268 criteria. Gateway also urges the Commission to address the various technical issues in a further Notice and establish deadlines in which various tasks are to be performed. This further notice's goal is to

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study the most efficient DTV channel plan which, when concluded, will replace the letter "D" in the adopted table.